

ABSTRACT

Polymer composite materials comprising of least one polymer resin and platelet particles from at least one layered silicate material uniformly dispersed in the resin and articles prepared from the polymer composite materials. The polymer composite contains at least one polyamide resin, at least one oxygen scavenging system, and at least one layered silicate material. These polymer composite materials are especially useful for manufacturing clear polyester bottles and polyester film that are recyclable have improved active gas barrier properties to oxygen, and have improved passive barrier properties to carbon dioxide and other gases. The polymer composite materials can be used in relatively minor amounts as either a blend or a coextruded thin layer with virgin or post consumer recycled polyesters and related copolymers.